

B. Specific Instructions

Details of the apparatus and materials required for the tests follow.

If any difficulty is experienced in providing the apparatus, the WJEC should be informed as soon as possible.

**Contacts: Subject Officer Gareth Kelly, 029 2026 5081, gareth.kelly@wjec.co.uk
Subject Support Officer Rhian Naish, 029 2026 5140, rhian.naish@wjec.co.uk**

The numerical values for the various components are intended as a guide only and supervisors may use their discretion if these sizes are not readily available.

Apparatus Required

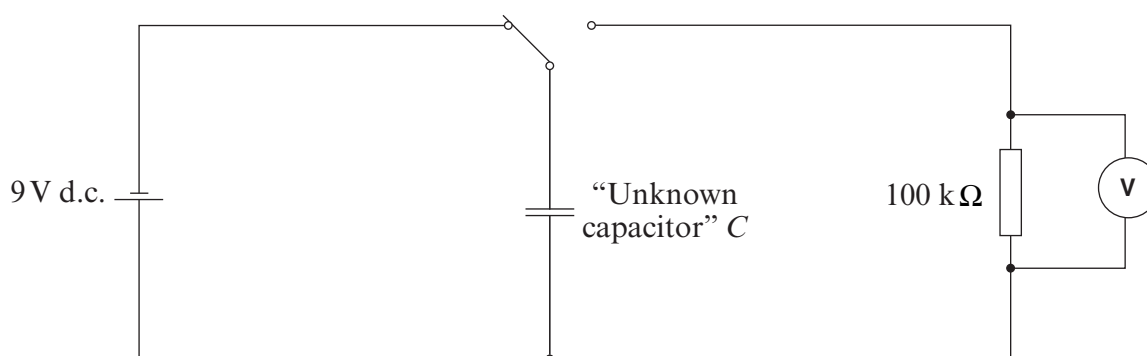
Test 1

The candidates will be expected to investigate the decay of a capacitor through a resistor.

The following apparatus is required for each candidate:

- 9 V d.c. power supply
- D.C voltmeter [or digital multimeter set to a voltage range] – resolution ± 0.01 V
- Stopwatch – Resolution - either ± 1 s or ± 0.01 s
- 4 mm leads
- Two way switch or suitable switches
- $1000\mu\text{F}$ capacitor, labelled “Unknown C ” [e.g. Rapid Electronics – Order Code 11-2953]. The value of the capacitor should be concealed.
- $100\text{ k}\Omega(R)$ Resistor [e.g. Rapid Electronics – Order Code 63-2426].

A possible circuit is as follows.



The apparatus should not be assembled for the candidates as this forms part of the task. The candidates will be expected to take pd and time readings.